

## Abstract

5       The invention relates to a software system and method for automatically verifying  
the correct execution of an application ported from one instruction set architecture (ISA)  
to another ISA. In this method, versions of the application are prepared for the two ISAs.  
Each version is then executed in a simulator or emulator for the appropriate ISA and the  
results of any change in memory made during the execution are compared. If each  
memory change made during the execution of the target version of the application is  
10       found to be equivalent to a memory change made during the execution of the source  
version of the application, the execution of the target (or ported) application is verifiably  
correct.